Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of optimizing cache management in a data storage device in operable communication with a host computer, the method comprising steps of:

(a) receiving a command from the host computer exhibiting a data usage pattern;

(b) selecting a cache management algorithm based on the data usage pattern by:

(b)(i) updating a set of usage statistics in response to receipt of the command; and

(b)(i)(1) correlating the set of data usage statistics with a predetermined set of usage patterns associated with known host computer platforms to identify one of the host computer platforms that most closely matches the set of usage statistics; and

(c) employing the cache management algorithm to process the command.

2. (Currently amended) The method of claim 1 wherein the selecting step (b) further comprises steps of:

~~(b)(i) updating a set of usage statistics in response to receipt of the command;~~

(b)(ii) determining whether a change is detected in the data usage pattern; and

(b)(iii) if a change is detected in the data usage pattern, selecting a cache management algorithm associated with the data usage pattern.

3. (Canceled)

4. (Original) The method of claim 2 wherein the data storage device is a disc drive having a data disc and the selecting step (b)(iii) comprises steps of:

(b)(iii)(1) directing a cache management executive to execute the selected cache management algorithm.

5. (Original) The method of claim 4 wherein the directing step (b)(iii)(1) comprises steps of:

(b)(iii)(1)(i) transmitting a base memory offset associated with the selected cache management algorithm to the cache management executive.

6. (Original) The method of claim 4 wherein the directing step (b)(iii)(1) comprises steps of:

(b)(iii)(1)(i) changing a switch position to point to the selected cache management algorithms.

7. (Original) The method of claim 1 wherein the data storage device is a disc drive having a disc storing sets of cache management algorithms, the method further comprising steps of:

(d) copying the sets of cache management algorithms from the data disc to memory.

8. (Currently Amended) The method of claim [[3]] 1 wherein the data storage device is a disc drive having a data disc and the method further comprises steps of:

(d) copying the predetermined set of usage patterns from the data disc to memory.

9. (Currently Amended) A cache manager for managing caching in a data storage device comprising:

a usage statistics module storing statistics associated with a sequence of commands received by the data storage device;

a configuration module storing one or more sets of pattern data indicative of predetermined patterns of command sequences associated with known file systems; and

a correlator accessing the usage statistics module and the pattern data in the configuration module and correlating the usage statistics with the pattern data to determine a match between the usage statistics and one of the sets of pattern data.

10. (Original) The cache manager of claim 9 further comprising:

a statistics-gathering module operably connected to the usage statistics module for gathering statistics related to the received sequence of commands and transmitting the statistics to the usage statistics module.

11. (Original) The cache manager of claim 10 further comprising:

a switch module receiving correlation data from the correlator and selecting one cache management algorithm from among a set of cache management algorithms based on the one or more sets of pattern data matched with the usage statistics; and

a cache management executive operable to execute the selected cache management algorithm.

12. (Currently Amended) The cache manager of claim 9 wherein each of the one or more sets of pattern data comprises a threshold value, ~~indicating a number of~~ wherein the correlator may compare usage statistics for consecutive read commands corresponding to a read mode against the threshold value to determine a match between the usage statistics and one of the sets of pattern data.

13. (Original) The cache manager of claim 11 further comprising:

a notification signal transmitted by the switch module notifying the cache management executive of the selected cache management algorithm.

14. (Original) The cache manager of claim 13 wherein the notification signal comprises:

a base memory pointer referencing a memory location storing the selected cache management algorithm.

15. (Currently Amended) A data storage device comprising:

a cache for buffering commands and data; and

a means for adaptively selecting a cache management algorithm based on ~~command data~~ matching statistics associated with a sequence of commands received by the data storage device with one of a plurality of sets of predetermined usage pattern data, each set of usage pattern data being associated with one of a plurality of known file systems.

16. (Original) The data storage device of claim 15 wherein the adaptive algorithm selection means comprises:

a usage statistics module storing usage statistics associated with a sequence of commands received by the data storage device;

a correlator in operable communication with the usage statistics module correlating the usage statistics with each of one or more sets of predetermined usage pattern data corresponding to known usage patterns and generating correlation data;

two cache management algorithms, wherein each cache management algorithm is associated with one of the known usage patterns; and

a switch module receiving the correlation data and determining a best match between the usage statistics and one of the one or more sets of predetermined usage pattern data and selecting one of the cache management algorithms based on the best match.

17. (Currently Amended) The ~~algorithm selection system~~ data storage device of claim 16 further comprising:

a cache management executive operably connected to the switch module, the cache management executive executing the selected one of the cache management algorithms.

18. (Currently Amended) The ~~algorithm selection system~~ data storage device of claim 16 wherein each of the one or more sets of predetermined usage pattern data includes a threshold value, ~~representing a number of~~ wherein the correlator may compare usage statistics for

consecutive read commands associated with a read mode against the threshold values to determine a match between the usage statistics and one of the sets of pattern data.

19. (Currently Amended) The ~~algorithm selection system~~ data storage device of claim 16 wherein each of the one or more sets of predetermined usage pattern data includes a threshold value, ~~representing a number of~~ wherein the correlator may compare usage statistics for consecutive Write Direct Memory Access (DMA) and flush cache command pairs against the threshold values to determine a match between the usage statistics and one of the sets of pattern data.

20. (Currently Amended) The ~~algorithm selection system~~ data storage device of claim 16, wherein at least one of the plurality of known files systems ~~predetermined usage pattern data are from a set~~ is a member of the group ~~comprising~~ consisting of: Microsoft Windows® NTFS, Microsoft Windows® FATS, Unix, and Apple® ~~operating systems~~.

21. (New) A method of accessing data in a data handling system, the method comprising:

receiving at least one known file system command to access the data;

collecting usage statistics associated with the received file system commands;

comparing the collected usage statistics with at least one predetermined data usage pattern associated with the known file system command;

identifying one of the predetermined data usage patterns that matches the collected usage statistics;

selecting a predetermined algorithm that is associated with the identified data usage pattern; and

accessing the data according to the selected algorithm.

22. (New) The method of claim 21, wherein the file system command includes a request to read data from a data storage device.

23. (New) The method of claim 21, wherein the file system command includes a request to store data on a data storage device.

24. (New) The method of claim 23, wherein the data to be stored is received during a download of data.

25. (New) The method of claim 21, wherein accessing the data according to the selected algorithm comprises accessing a cache.

26. (New) The method of claim 25, wherein the selected algorithm comprises a cache management algorithm.